

Definition of Facility Categories

January 30, 2009

This paper presents a preliminary approach to defining the categories of waste management and recycling facilities to be covered in the Recycling and Waste Management Infrastructure Project (Infrastructure Project).

Figure 1 identifies the categories of facilities to be covered. In short, the project covers: all permanent physical facilities involved with waste transfer, transformation and disposal; and all recycling facilities from intermediate processing (e.g., materials recovery facilities that bale HDPE bottles) through intermediate manufacture (e.g., plastics reclaimers producing pellets from HDPE bottles) through manufacturing facilities using recycled materials to make new products (e.g., plastic converters that make pipe from HDPE pellets). Activities related to waste hauling, recycling collection and the distribution and sale of recycled content products are not proposed to be covered in the project.

To the extent possible, this Project uses facility category definitions already in common use.

Table 1 below lists the preliminary facility category definitions. Following are some of the key conventions used in developing these preliminary category definitions.

- Each facility is a physical location.
- Each facility category is broadly defined and may include several subcategories that more narrowly identify the type of facility in commonly used terms.
- For waste related activities, the categories are based on the categories and activities used in the Board's Solid Waste Information System (SWIS) Database, and the definitions provided in California Public Resources Code (sections 40100-40201).
- The intermediate recycling manufacture and recycling manufacture categories are adapted from the Board's 2001 California Recycling Economic Information (REI) Study.
- The Facilities are defined as broadly as possible to facilitate the project's web modeling component. On the project web site, each facility will be represented as a dot on a map. For modeling purposes, each facility will reflect a node – with inputs moving into and outputs moving out of each Facility (for example mixed recyclables may move into a Transfer/Processing Facility and paper, metal, plastic, and glass may move out).

The preliminary definitions listed in Table 1 will be revised based on stakeholder feedback by summer 2009. The project is scheduled to culminate in a new Infrastructure Information Web Page within the Board's existing Web Site in April 2010. All interested parties are encouraged to read the [Project Overview and Vision](#) and complete an [online survey](#) to ensure your voice is heard.

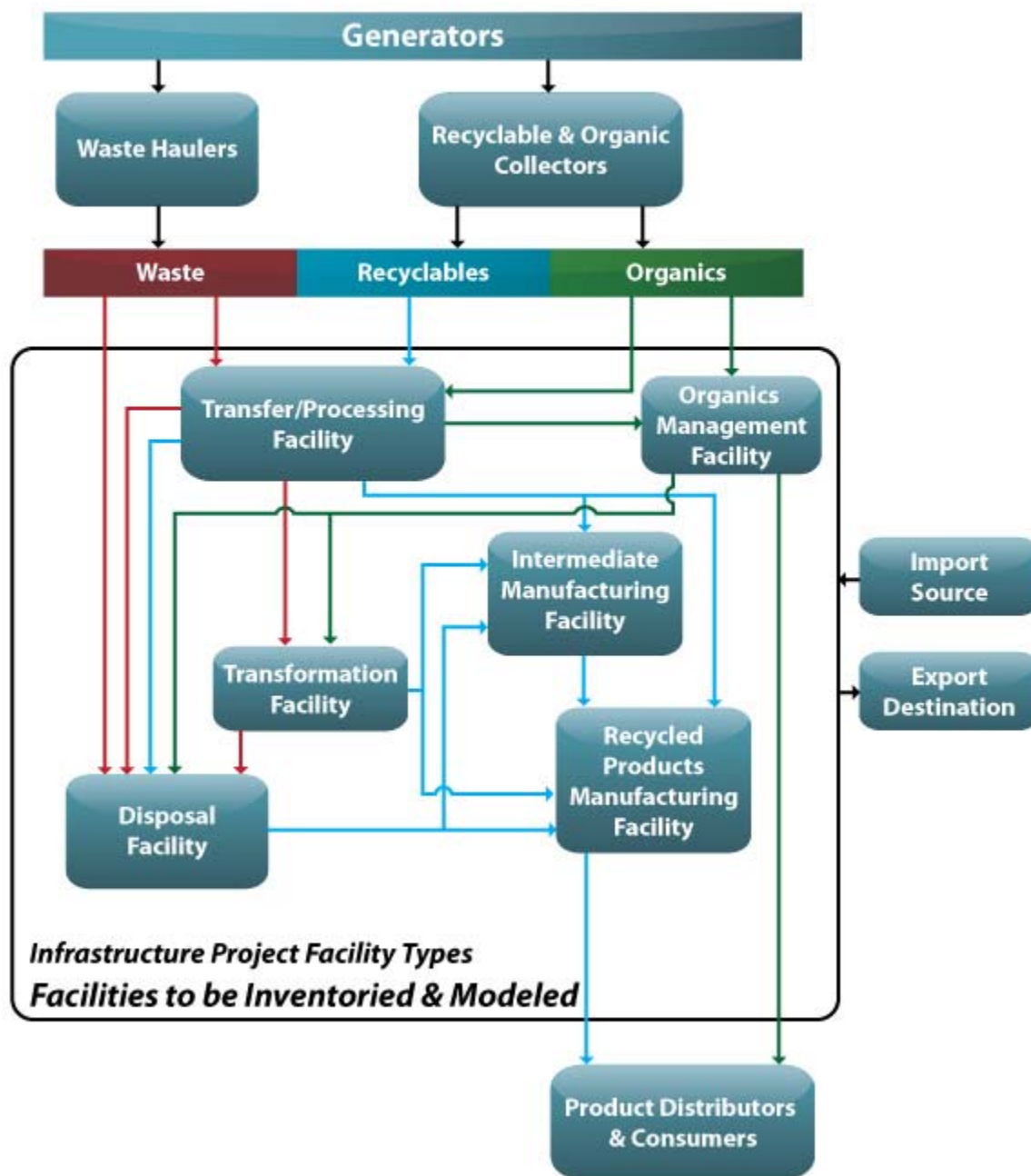


Figure 1: Waste Management and Recycling Flow Chart Identifying Categories of Facilities Covered in the Project

California Integrated Waste Management Board
Recycling and Waste Management Infrastructure Project

Facility Definitions

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Disposal Facility	Facility that accepts waste for final deposition onto the land (see PRC 40192)	Disposal	Mixed Solid Waste	Solid Waste Disposal Site	Facility that land disposes of solid waste
		Disposal	C&D only	CDI Waste Disposal Facility	Facility that land disposes of C&D or inert waste
		Disposal	Inert Only	Inert Debris Disposal Facility	Facility that land disposes of inert waste
		Disposal	Used Tires	Tire Landfill	Facility that land disposes of tires
			Organic (Wood Waste)	Wood Waste Disposal Site	Facility that land disposes of C&D or inert waste
		Beneficial Reuse	Organics, C&D Other (as Alternate Daily Cover or Alternate Intermediate Cover)	Alternative Daily Cover (ADC) or Alternate Intermediate Cover (AIC) Use Facility	Landfill that uses recovered material as alternative daily cover (ADC) or intermediate cover (AIC)
		Landfill Recycling	Paper, Metal, Glass, Plastic (out)	Landfill Recycling	Landfill Materials Recycling Facility
Transfer/ Processing Facility	Facilities that receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport (see PRC 40200)	Transfer	Mixed Solid Waste	Solid Waste Transfer Station	Establishment that receives unprocessed waste, temporarily stores it, and ships it off-site to another Facility.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Transfer/ Processing Facility		Transfer	Mixed Recyclables	Recyclables Transfer Station	Establishment that receives unprocessed mixed recyclables, temporarily stores them, and ships them off-site to another Facility.
		Transfer	Used Oil	Used Oil Collection Facility	Establishment that receives used oil, temporarily stores it, and ships it off-site to another Facility.
		Transfer	HHW/E-Waste	Household Hazardous Waste Collection Facility / Electronics Waste Collection Facility	Establishment that receives Household Hazardous Waste or E-waste, temporarily stores it, and ships it off-site to another Facility.
		Transfer	Mixed Solid Waste & Mixed Recyclables	Citizen Convenience Centers (e.g., MSW or recycling drop-off,	Establishment that receives unprocessed waste or recyclables(drop-off facility), temporarily stores it, and ships it off-site to another Facility.
		Process	Mixed recyclables	Material Recycling Facility	Establishment that accepts mixed wastes or source separated recyclables and processes them for wholesale distribution and/or further processing.
		Process	Recyclable C&D	C&D Processing Facility	Establishment that accepts recyclable C&D and processes it for wholesale distribution and further processing. (Includes Inert Debris Processing Facilities and CDI Wood Processing Facilities)
		Process	Used Tires	Waste Tire Processing Facility	Facility that processes used and waste tires for beneficial reuse through sorting for reuse, size reduction, or other
Transformation Facility	Facilities that conduct incineration, pyrolysis, distillation or biological conversion other than composting (see PRC 40201)	Incineration	Mixed Solid Waste	Waste-to-Energy Facility	Power plant that uses solid waste as fuel
		Incineration	Organics	Biomass-to-Energy Facility	Power plant that uses vegetative/organic matter as fuel
		Conversion	Mixed Solid Waste, Organics	Conversion Facility	Establishment processing waste material by hydrolysis, gasification, or anaerobic digestion to produce energy
		Transformation	Ferrous, Non-Ferrous	Transformation Materials Recycling Facility	A Transformation facility where some recycling activity occurs, for example ferrous recovery from WTE ash.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Organics Management Facility	Facility that conducts composting or wood chipping and grinding activities	Composting	Organics	Compost Facility	Establishment that conducts the controlled biological decomposition of organic wastes that are source separated from the solid waste stream (see PRC 40116)
		Chipping and Grinding	Organics	Organic Chipping and Grinding Facility	Establishment that receives vegetative matter and conducts chipping or grinding operations produces products (including mulch) before shipment to another Facility or sale
Intermediate Manufacturing Facility	Facility that accepts separated recyclables and performs activities to improve material quality or content so that it may be used in a manufacturing process	Intermediate Manufacturing	Glass	Beneficiation Facility	Independent establishments which produce clean, crushed glass cullet satisfying the specifications of users, primarily glass container and fiberglass insulation manufacturers. Activities may include sorting color, removing contaminants, crushing, grinding, screening, grading and monitoring size and quality. This category requires additional examination and may need to be combined with recyclable material wholesalers.
		Intermediate Manufacturing	Metal	Detinning Facility	Establishments which process recovered metallic cans for sale to manufacturers.
		Intermediate Manufacturing	Used Tires	Crumb Rubber Production Facility	Miscellaneous rubber product manufacturers Establishments which produce first stage intermediate products end products using crumb rubber as a feedstock.
		Intermediate Manufacturing	Plastics	Plastics Reclaiming Facility	Establishments which produce plastic pellets or granulated plastic suitable for use by plastics product manufacturers. Activities include separating, washing, grinding, flaking and/or pelletizing. This category also includes establishments which manufacture intermediate products directly from unprocessed recycled plastic, such as plastic lumber products.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Intermediate Manufacturing Facility		Intermediate Manufacturing	Organics/Textiles	Textile Processing Facility	Establishments which collect, sort, grade and otherwise process discarded textiles.
		Intermediate Manufacturing	Paper, Metal, Plastic, Glass	Recyclable Material Wholesale Facility	Establishments which process recycled materials by sorting, grading, densifying, removing contaminants and otherwise preparing the materials for shipment to manufacturing facilities for use in industrial production. Examples include paper stock dealers and scrap metal processors. These establishments may also provide recycling collection services. This category is intended to be defined consistently with the new NAIC category for recyclable material wholesalers.
Recycled Product (or Recycled Content Product) Manufacturing Facility	Facility that uses recycled materials as input into new products	Product Manufacturing	Used Oil	Used Oil Re-Refining Facility	Establishments where used engine oil is processed into a product which competes with new, "virgin" engine oil.
		Product Manufacturing	Used Oil	Used Oil Recycling Facility	Establishment where used oil is processed into a fuel that can be substituted for virgin petroleum product.
		Product Manufacturing	Glass	Glass Container Manufacturing Plant	Establishments which produce finished glass containers for shipment to bottlers, using recycled glass cullet as a feedstock. May also undertake beneficiation activities on site.
		Product Manufacturing	Glass	Fiberglass Insulation Production Facility	Establishments which produce fiberglass for conversion into insulation and/or molded products, using recycled glass cullet as a feedstock.
		Product Manufacturing	Glass	Glass Product Production Facility (other recycled uses)	Establishments which produce products other than containers, using recycled glass as a feedstock. Examples include fiberglass, decorative tiles, glassware, and construction blocks.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Recycled Product (or Recycled Content Product) Manufacturing Facility		Product Manufacturing	Non-Ferrous	Nonferrous Secondary Smelting and Refining Mills	Establishments involved in the recovery and alloying of nonferrous metals. Activities include grading, sorting, detinning, refining, and other processes. Produce intermediate products such as ingot. May also include fabrication of basic products. Note that primary smelters of nonferrous metals, excluding aluminum and copper, process scrap in addition to virgin materials. Primary aluminum and copper smelters do not process scrap.
		Product Manufacturing	Non-Ferrous	Nonferrous Product Production Facility	Establishments which produce a wide range of intermediate products through extrusion processes, primarily from billet manufactured in smelting operations. Many of these plants may also operate in-house casting operations which process unrefined nonferrous scrap.
		Product Manufacturing	Non-Ferrous	Nonferrous Foundries	Establishments which produce castings and die-castings of various non ferrous metals and alloys. Note that many manufacturers of specific end-products, e.g., automobiles, may operate foundries and purchase scrap.
		Product Manufacturing	Paper	Paper and Paperboard Mills/Deinked Market Pulp Production Facility	Establishments which deink discarded paper and produce first stage intermediate paper and paper board products (e.g., paper rolls) using discarded paper or deinked market pulp as a feedstock. Also includes establishments which deink discarded paper and produce market pulp for sale to paper and paperboard mills.
		Product Manufacturing	Paper	Paper-based Product Manufacturing Facility	Establishments which produce paper products other than traditional paper and paperboard products, using discarded paper as a feedstock. Examples include cellulose insulation, molded fiber products, construction board, hydro-seeding mulch or animal bedding.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Recycled Product (or Recycled Content Product) Manufacturing Facility		Product Manufacturing	Glass, C&D	Pavement Mix Production Facility (asphalt and aggregate)	Establishments which produce asphalt paving mix and aggregate for use in road construction using recycled pavement, asphalt, rubber modified asphalt and/or glass, in addition to virgin materials.
		Product Manufacturing	Used Tires	Rubber Product Manufacturing Facility	Establishments which produce first-stage intermediate products or end products using crumb rubber as a feedstock.
		Product Manufacturing	Plastic	Plastic Converting Facility	Establishments which produce intermediate plastic products (e.g., molded products and components, sheet and fiber) using recycled pellets or granulated plastic as a feedstock.
		Product Manufacturing	Steel Cans, Ferrous	Steel Mill	Basic oxygen furnaces (BOF) producing raw steel in various forms using a mix of scrap and molten iron made in blast furnaces from scrap and raw materials (iron ore, coke, limestone) and also electric arc furnaces (EAF) using scrap. Products from EAF mills are primarily slabs, billets or rebar. Products from BOF mills are primarily flat or rolled products. Activities include grading scrap, detinning, refining and product fabrication. Additional fabrication and assembly of final stage products may occur at these facilities.
		Product Manufacturing	Steel Cans, Ferrous	Iron and Steel Foundry	Establishments which produce a wide range of cast steel products using unrefined scrap and steel ingot produced in steel mills. Activities may include grading scrap, refining and casting.
		Product Manufacturing	Other	Other Recycling Processing and Manufacturing Facility	Other recycling processors and manufacturers, not elsewhere classified. May include used oil refiners, household hazardous waste processors, agricultural facilities or landscapers using ash or paper mill sludge, engineering applications of tires, and other users of materials not elsewhere classified.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Recycled Product (or Recycled Content Product) Manufacturing Facility		Reuse and Remanufacturing	E-waste	Computer and Electronic Appliance Remanufacturing Facility	Establishments which sort, classify, grade and remanufacture used electronic appliances, primarily computers. Remanufacture may encompass entire appliances or components. These establishments may also recycle materials not suitable for remanufacture.
		Reuse and Remanufacturing	Motor vehicles, motor vehicle parts	Motor Vehicle Parts Remanufacturing Facility	Establishments which clean, sort, inspect and remanufacture used motor vehicle parts.
		Reuse and Remanufacturing	Consumer products	Retail Used Merchandise Sales Facility	Establishments which operate retail sales facilities dedicated to reused products. Activities may include providing drop-off or pick-up collection services for used products; cleaning, repairing and otherwise preparing products for resale. Includes "thrift" stores, reusable product depots, reuse centers and product-specific stores such as used clothing and used sporting goods, not elsewhere classified.
		Reuse and Remanufacturing	Tires	Tire Retreading Facility	Establishments which sort, clean, buff and remanufacture used tires by adding new tread. These establishments produce crumb rubber as a by-product.
		Reuse and Remanufacturing	Wood Waste	Wood Reuse Facility	Establishments which produce graded lumber and/or finished goods by cleaning, grading, and otherwise processing used wood. Includes establishments which purchase used, damaged pallets and remanufacture for reuse. Does not include establishments whose primary product is fuel.

Facility	Definition	Activity	Materials Managed	Facility Sub-Type	Facility Sub-Type Description
Export Destinations	Out of state facility to which material moves from the California solid waste infrastructure system		Any	Export for Disposal	Out-of state facility where waste is shipped for final disposal
			Any	Export for Recycling	Out-of state facility where recyclables are shipped to for recycling
			Any	Export for Processing	Out-of state facility where recyclables are shipped to for further processing
			Any	Export for Sale	Out-of state facility where recyclables are shipped to for sale
Import Sources	Out of state facility to which material moves from the California solid waste infrastructure system		Any	Import for Disposal	Activity where waste is shipped into California final disposal from an out-of state facility.
			Any	Import for Recycling	Activity where waste is shipped to an out-of-state facility for recycling
			Any	Import for Processing	Activity where waste is shipped to an out-of-state facility for further processing